

ABSTRACT OF THE DISCLOSURE

A push-pull signal is detected from light reflected from a disk-shaped storage medium on which wobbling grooves are formed as recording tracks and address information is recorded by forming pre-pits on lands between adjacent grooves. A fundamental amplitude variation signal indicating the fundamental amplitude variation of the push-pull signal is acquired, and a reference voltage is generated by adding an offset voltage to the fundamental amplitude variation signal. Pre-pits are detected by comparing the push-pull signal with the reference voltage. Because the reference voltage is produced on the basis of the fundamental amplitude variation signal indicating the variation components of the push-pull signal due to the wobbling of grooves and noise, the variation components due to the wobbling and noise are reflected in the reference voltage. Furthermore, the variation components of the push-pull signal corresponding to the pre-pits are also reflected to a properly small extent in the reference voltage.